

PATIENT INFORMATION ON METHOTREXATE

(Brand names: Methoblastin)

This information sheet has been produced by the Australian Rheumatology Association to help you understand the medicine that has been prescribed for you. It includes important information about:

- how you should take your medicine**
- what are the possible side effects**
- what tests you must have to monitor your condition and to detect unwanted effects**
- other precautions you should take when you are taking methotrexate**

Please read it carefully and discuss it with your doctor.

Important things to remember

- While taking methotrexate you should see your rheumatologist regularly to make sure the treatment is working and to minimise any possible side effects.
- You should have regular blood tests as directed by your rheumatologist.
- If you are concerned about any side effects you should contact your rheumatologist as soon as possible.

For more information about RHEUMATOID ARTHRITIS see Arthritis Australia's website: www.arthritisaustralia.com.au

What is methotrexate?

Methotrexate (brand name Methoblastin) is a medicine used to treat rheumatoid arthritis as well as other rheumatic conditions such as juvenile arthritis, lupus (also known as SLE), psoriatic arthritis and polymyositis (muscle inflammation).

Methotrexate is an immunosuppressive medicine. It works by reducing the activity of several enzymes involved in the immune system. By blocking an

enzyme called dihydrofolate reductase, it reduces production of a form of folic acid. It is not entirely clear how methotrexate decreases the severity of arthritis, but it reduces inflammation in the joints and associated pain and swelling.

Because methotrexate reduces the damage to the joints, rather than just relieving the pain, it belongs to the group of medicines called **disease modifying antirheumatic drugs (DMARDs)**.

Low dose methotrexate has been used to treat rheumatoid arthritis for more than 25 years. It is also used at very high doses (1000mg-5000mg a day) to treat some cancers.

What benefit can you expect from your treatment?

Methotrexate is one of the most effective treatments for rheumatoid arthritis. Most, but not all, patients will benefit from this medicine. Some achieve remission, where the arthritis virtually disappears.

Methotrexate does not work straight away. Reduced pain, stiffness and swelling may be noticed after 4 weeks. The effects to delay or prevent joint damage will take several months.

Other medicines may be given to improve your symptoms while waiting for methotrexate to work.

How is methotrexate taken?

Methotrexate may be taken by mouth as a tablet or given by injection either into the muscle or under the skin.

Injections may be used instead of tablets if the medicine is not being absorbed well, or if you feel sick (nausea) or vomit when you take the tablets, or if your condition is not improving with tablets.

Care should be taken when disposing of the needles and syringes.

When should it be taken?

Methotrexate is taken **once a week**, on the same day each week. If you are taking the tablets, it is a good idea to specify the day of the week that you will take your tablets to avoid making mistakes.

Methotrexate tablets are best absorbed when taken on an empty stomach. However if nausea is a problem, taking them at mealtime can help to reduce this side effect and does not reduce the benefits too much.

What is the dosage?

Tablets come in 2.5mg or 10mg strengths. Treatment may start with a very low dose of 5mg or 10mg a week, increasing to an average dose of 20mg a week. The dose is adjusted depending on the response, up to about 30mg once a week.

The dose is usually taken all at once on a single day. It may be divided into separate doses taken during that day if necessary.

Can other medicines be taken with methotrexate?

In order to reduce side effects, it is recommended that you also take folic acid or folinic acid. Your doctor will explain how much of the folic/folinic acid to take and when to take it.

Methotrexate is often taken in combination with other arthritis medicines, including:

- other DMARDs
- biological DMARDs (these act on natural substances in the body that contribute to inflammation and joint damage)
- steroid medicines such as prednisolone or cortisone injections into the joint
- anti-inflammatory medicines (NSAIDs) such as naproxen (Naprosyn) or ibuprofen (Brufen/Nurofen)
- simple pain medicines such as paracetamol.

There are separate information sheets for the medicines mentioned above.

How long is the treatment continued?

Treatment with methotrexate is continued indefinitely as long as it is effective and as long as no serious side effects occur.

If you stop methotrexate treatment for more than a few weeks there is a risk that your condition may worsen. Continue with your treatment unless advised by your doctor or unless side effects develop.

If you have an illness that makes you unwell enough to change plans for the day (e.g. gastroenteritis or fever), it is reasonable to miss the weekly dose until you have recovered.

Are there any side effects?

You might experience side effects with your treatment. Tell your doctor if you are concerned about possible side effects.

A reduction in dose may minimise side effects so that you can continue to take the treatment. Your doctor will advise on any dose changes that are necessary.

Most common possible side effects:

- The most common side effects are *nausea*, *vomiting* and *diarrhoea*. These can be reduced if methotrexate is taken with food or in the evening. Anti-nausea tablets can be used if needed.
- *Mouth ulcers* can occur, but the use of folic acid or folinic acid supplements makes this less likely.
- *Skin dryness, a variety of skin rashes* and *increased sensitivity to the sun* may also occur. You should wear sunscreen and a hat when out in the sun.
- Some people report mild *tiredness, headache* and *mental clouding*. Some also experience a temporary increase in muscle and joint pain after taking the weekly dose.

Less common or rare possible side effects:

There are some rare but potentially serious side effects with methotrexate.

- **Blood counts:** Methotrexate can rarely cause a drop in the number of white blood cells, which are needed to fight infection. It can also cause a drop in the number of platelets, which help to stop bleeding. Regular blood tests aim to pick these problems up early if they occur. If you develop a sore mouth, mouth ulcers, easy bruising, nosebleeds, bleeding gums, breathlessness, infection or fever tell your doctor straight away.
- **Liver:** Methotrexate can inflame the liver causing a type of hepatitis. Regular blood tests aim to pick this up early if it occurs. The dose of methotrexate may have to be reduced or stopped if problems occur. Liver problems may be increased when methotrexate is combined with the medicines azathioprine (Azamun, Azapin, Imuran, Thioprine) or leflunomide (Arabloc, Arava) or with heavy alcohol use (see *Alcohol* overleaf).

- **Lungs:** Methotrexate can cause inflammation of the lungs. This may be more likely if leflunomide is being taken at the same time. The problem may develop quickly, so if you have a sudden onset of breathing difficulties seek medical attention as soon as possible. It may also develop with symptoms such as a dry cough.
- **Hair thinning:** This may occur rarely. It is not permanent and hair will grow back when the medicine is stopped.
- **Nodule formations:** Some people with rheumatoid arthritis develop nodules on their elbows or other pressure points. In some cases methotrexate may increase this.
- **Cancer:** see below.

Long term side effects

Methotrexate may be taken for long periods (more than 25 years) to manage rheumatoid arthritis. In addition to the possible effects mentioned above, the following are rare but possible long-term side effects, or long-term issues that may concern patients:

- **Liver:** Very rare cases of increased fibrous tissue in the liver have been reported after long-term treatment. Regular monitoring can minimise the risk of this occurring.
- **Cancer:** People who have rheumatoid arthritis have an increased risk of lymphoma (a lymph node cancer). It is not clear whether methotrexate increases this risk further but any additional risk is likely to be very small. Methotrexate may reduce the risk of these cancers by controlling the rheumatoid arthritis, but this is unproven. For general cancer prevention, stopping smoking is recommended. An annual skin check to detect any early skin cancer is also recommended.
- **Fertility:** Methotrexate does not affect a person's ability to have children in the long term. See also *Precautions*.

More information about possible side effects

Information that comes with your methotrexate medicine describes in detail potential serious side effects that may occur with methotrexate. Many of those side effects relate to **high dose** methotrexate used for the treatment of cancer. These may not be applicable to the much lower doses that are prescribed for the treatment of rheumatoid arthritis. Talk to your doctor if you have concerns about any possible side effects.

What precautions are necessary?

Blood tests:

- As methotrexate may affect the liver and blood cells, you must have regular blood tests during

your treatment. This is very important, as you may not get symptoms with some of these problems.

- Blood tests are particularly important during the first few months of treatment and when methotrexate is taken with leflunomide.
- As well as monitoring for side effects, blood tests help to monitor your condition to determine if the treatment is effective.
- You will need to have full blood counts and liver function tests every 2 to 4 weeks for the first few months of treatment and then every 1 to 3 months after that.
- If there are no problems seen after 3-6 months of treatment at a specific dose of methotrexate, the blood tests may be then done 3 monthly.
- Your general practitioner (GP) will be informed about the monitoring schedule. It is important to see your GP if you have been asked to do so as they have an important role in monitoring your condition.

Risk of infections:

- Because your immune system may be depressed, there is an increased risk of developing some infections, especially herpes zoster (chicken pox and shingles). You should try to avoid contact with people who have these infections. If you have an infection or persistent fever, tell your doctor straight away.

Use with other medicines:

- Methotrexate can interact with other medicines. You should tell your doctor (including your GP, rheumatologist and others) about all medicines you are taking or plan to take. This includes over the counter, herbal or naturopathic medicines. You should also mention your treatment when you see other health professionals.
- Antibiotics containing trimethoprim (e.g. **Bactrim, Septrim** or **Triprim**) can cause problems when taken with methotrexate. If you are prescribed any of these medications you **must** tell the doctor you are taking methotrexate.
- Aspirin can be used safely in the low doses taken for prevention of heart attack and stroke.
- Methotrexate can be taken safely with anti-inflammatory drugs (NSAIDs), as long as your kidney function is normal.
- The simple pain reliever paracetamol, and combined medicines such as Panadeine and Panadeine Forte, can be used while taking

methotrexate, provided you take them as directed.

- Most vaccines can be given safely. Current recommendations are that low dose methotrexate ($\leq 0.4\text{mg/kg}$ per week) is not a contraindication to live vaccines, such as Zostavax, MMR (measles, mumps and rubella), oral polio or yellow fever.
- Pneumovax and yearly flu vaccinations are safe and recommended to reduce your risk of those infections.
- Talk with your rheumatologist before receiving any vaccines.

Use with alcohol

- Alcohol increases the risk of liver damage while taking methotrexate. Methotrexate usage in heavy drinkers has been associated with cirrhosis of the liver.
- It is not known precisely what level of drinking is safe when on methotrexate, however there is general agreement that 1 to 2 standard drinks taken once or twice a week is unlikely to cause a problem.
- Drinking more than 4 standard drinks on one occasion, even if infrequently, is strongly discouraged.

Surgery

- If low dose once weekly methotrexate is continued during surgery there seems to be no change in wound healing or increased infection.

Use in pregnancy and breastfeeding

https://rheumatology.org.au/downloads/AUSTRALIA_NRHEUMATOLOGYASSOCIATIONpregnancyprescribingnotes200516.pdf

- Methotrexate should not be taken during pregnancy as it can cause miscarriage or foetal deformity. It should also not be taken when breastfeeding.
- Women of child-bearing age should use effective contraception while taking methotrexate.
- Women planning to become pregnant should stop taking methotrexate 3 months before attempting to conceive.
- Based on recent publications low-dose MTX may be compatible with paternal exposure.
- Methotrexate does not affect a person's ability to have children in the long term.

How to store methotrexate

- Store methotrexate in a cool, dry place, away from direct heat and light (e.g. not in the bathroom)
- Keep all medicines out of reach of children.

Questions?

If you have any questions or concerns write them down and discuss them with your doctor.

Your doctor's contact details

You should see your rheumatologist regularly to make sure the treatment is working and to minimise any potential side effects.

How to help us help you

Sign up to the ARAD project now!

The Australian Rheumatology Association collects information on how well these drugs work and how often they cause problems.

The best way to get this information is from you!

Contact us in any of the following ways:

Email: ARAD@monash.edu

Telephone: Sydney 02 9463 1889 or
Melbourne 03 9508 3424

The information in this sheet has been obtained from various sources and has been reviewed by the Australian Rheumatology Association. It is intended as an educational aid and does not cover all possible uses, actions, precautions, side effects, or interactions of the medicines mentioned. This information is not intended as medical advice for individual problems nor for making an individual assessment of the risks and benefits of taking a particular medicine. It can be reproduced in its entirety but cannot be altered without permission from the ARA. The NHMRC publication: *How to present the evidence for consumers: preparation of consumer publications* (2000) was used as a guide in developing this publication.